

**PROCEDURE FOR THE VERIFICATION OF THE
TEMPERATURES OF OVENS USED FOR MATERIALS
TESTING AS SPECIFIED BY APPLICABLE AASHTO
TEST METHOD**

A. PURPOSE

These methods are intended to provide instruction for the verification of temperature of ovens used in materials testing.

B. APPARATUS REQUIRED

1. A calibrated thermometer graduated in increments of 1.0 °C or 1.0 °F and having a range which includes the temperature to be checked
2. A metal thermometer well to retain heat when door is opened for verification of temperature

C. PROCEDURE

1. Select a laboratory thermometer appropriate for the temperature specified by applicable AASHTO Test Method.
2. Place thermometer into thermometer well and place into oven on shelf normally used for drying. Thermometer should be placed in center of oven away from walls and positioned so that it is easily readable.
3. Close door for one (1) hour minimum.
4. Observe temperature reading and record.
5. Close door and for a minimum of 30 minutes and observe and record a second reading. Repeat and record a third reading.
6. Adjust temperature of oven if temperature is not within specified tolerances, allowing 30 minutes between adjustments.

D. TOLERANCE

Drying ovens shall be capable of maintaining a constant temperature ranges listed in the appropriate test method.

Note: As appropriate, use form No. OMR-CVP-5A.

EQUIPMENT VERIFICATION RECORD

| | |
|--|---|
| Verified By: _____ | Date: _____ |
| Equipment: <u>Thin-Film Over</u> | Location (Lab): _____ |
| Identification No.: _____ | Verification Frequency: <u>3 months</u> |
| Previous Verification Date: _____ | Next Due Date: _____ |
| Verification Equipment Used: _____ _____ | |
| ID Number: _____ SN: _____ Timer ID # _____ | |
| Verification Procedure: <u>(In-house) OMR-CVP-5A / AASHTO T 179</u> Specified Temperature: _____ | |

1. Oven

| | | | | | | |
|--|--|--|--|--|--|--|
| Distance from shelf to the bottom of the thermometer bulb? | | | | | | |
| Measure two distances from the thermometer to the shelf's center. | | | | | | |
| After placing samples in oven, record the time needed for the oven to recover to test temperature. | | | | | | |
| Record the number of shelf rotations in one minute. | | | | | | |
| Record the oven temperature at half-hour intervals until test is complete. | | | | | | |
| 30 min. | | | | | | |
| 1 hr. | | | | | | |
| 1:30 hr. | | | | | | |
| 2 hr. | | | | | | |
| 2:30 hr. | | | | | | |
| 3 hr. | | | | | | |
| 3:30 hr. | | | | | | |
| 4 hr. | | | | | | |
| 4:30 hr. | | | | | | |
| 5 hr. | | | | | | |

2. Tightly fitted hinged door? _____
3. Thermometer readable through door or through inner door? _____